UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/511,372	10/14/2004	Thomas Justel	DE 020101	8681	
24737 DHII IDS INTE	7590 05/29/200		EXAM	EXAMINER OUARTERMAN KEVIN J	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001		QUARTERMAN, KEVIN J			
BRIARCLIFF	MANOR, NY 10510		ART UNIT	PAPER NUMBER	
			2879		
	,				
•		·	MAIL DATE	DELIVERY MODE	
			. 05/29/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	•		9	rH			
		Application No.	Applicant(s)				
Office Action Summary		10/511,372	JUSTEL ET AL.				
		Examiner	Art Unit				
		Kevin Quarterman	2879				
Period fo	The MAILING DATE of this communication ap r Reply	ppears on the cover sheet with	the correspondence address				
WHIC - Exten after : - If NO - Failur Any re	DRTENED STATUTORY PERIOD FOR REPL HEVER IS LONGER, FROM THE MAILING I sions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period e to reply within the set or extended period for reply will, by statutely reply received by the Office later than three months after the mailing d patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICA .136(a). In no event, however, may a reply d will apply and will expire SIX (6) MONTH te, cause the application to become ABAN	TION.  be timely filed  from the mailing date of this communication.  DONED (35 U.S.C. § 133).				
Status							
1)⊠	Responsive to communication(s) filed on 26 A	April 2007.					
·		is action is non-final.					
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Dispositi	on of Claims						
5)□ 6)⊠ 7)□	Claim(s) 1-4 is/are pending in the application 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) 1-4 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/	awn from consideration.	-				
Applicati	on Papers						
9) 🗌 -	The specification is objected to by the Examin	ner.					
10)🛛	10)⊠ The drawing(s) filed on <u>14 October 2004</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.						
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
	Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the E			).			
Priority u	nder 35 U.S.C. § 119						
12)⊠ <i>i</i> a)[	Acknowledgment is made of a claim for foreig  All b) Some * c) None of:  1. Certified copies of the priority document  2. Certified copies of the priority document  3. Copies of the certified copies of the priority document  application from the International Bureate the attached detailed Office action for a list	nts have been received. nts have been received in App ority documents have been re au (PCT Rule 17.2(a)).	lication No ceived in this National Stage				
Attachment							
_	e of References Cited (PTO-892)	4) Tinterview Sun	nmary (PTO-413)				
2)  Notice 3)  Inform	e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08) No(s)/Mail Date	Paper No(s)/N	fail Date mal Patent Application				

Application/Control Number: 10/511,372 Page 2

Art Unit: 2879

### **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 April 2007 has been entered.

# Response to Amendment

2. Applicant's amendment and remarks received 27 March 2007 have been entered.

### Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 4. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Application/Control Number: 10/511,372

Art Unit: 2879

5. Applicant has amended independent claim 1 to include a limitation that the plasma display panel is equipped with "no rear plate" and a limitation that "the front plate and the carrier plate are not sealed." The Examiner notes that any negative limitation must have basis in the original disclosure. The mere absence of a positive recitation is not basis for an exclusion (MPEP § 2173.05 (i)).

Page 3

- 6. The additional negative limitations recited above are not described in applicant's original disclosure. The carrier plate (2) shown in applicant's Fig. 1 is considered to be a rear plate, even though it is not so called. Applicant's Figure 1 shows a gap between the front plate (3) and the carrier plate (2). However, this does not suggest that the front plate and the carrier plate are not sealed, since applicant discloses that plasma display panels are hermetically sealed (pg. 1, ln. 11-12).
- 7. Thus, the Examiner notes that the above negative limitations are deemed **new matter**, since they were not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Due to their dependency upon independent claim 1, claims 2-4 are also rejected for failing to comply with the written description requirement.
- 8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 9. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Application/Control Number: 10/511,372 Page 4

Art Unit: 2879

10. Regarding independent claim 1, the claim recites, "a front plate and no rear plate (1) which has a glass plate..." in lines 1-2 of the claim. It is unclear whether the front plate or the rear plate has the glass plate. Applicant's drawing appears to show the front plate (1) having the glass plate (3), but this is not clearly recited in the claim. Independent claim 1 also recites "...a segmented fluorescent layer (9) wherein the front plate and the carrier plate are not sealed which contains red-emitting color segments..." in lines 3-6 of the claim. It is unclear whether the fluorescent layer (9), the front plate (1), or the carrier plate (2) contains the fluorescent substances. Due to their dependency upon independent claim 1, claims 2-4 are also deemed indefinite for the above reasons given for independent claim 1.

### Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Application/Control Number: 10/511,372

Art Unit: 2879

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

- 13. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being obvious over Juestel (US 6,573,654) in view of Hayashi (US 2002/0089284).
- 14. The applied reference (Juestel) has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filling date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).
- 15. Regarding independent claim 1, Figure 1 of Juestel shows a plasma display panel equipped with a front plate and no rear plate (1) which a glass plate (3) on which a dielectric layer (4) and a protective layer (5) are deposited, with a carrier plate (2) covered by a segmented fluorescent layer (10) wherein the front plate and the carrier

Application/Control Number: 10/511,372

Art Unit: 2879

plate are not sealed which contains red-emitting color segments or a red-emitting fluorescent substance, blue-emitting color segments of a blue-emitting fluorescent substance and green-emitting color segments of a green-emitting Tb<sup>3+</sup>-activated fluorescent substance, has a rib structure (13) which divides the space between the front plate and carrier plate into plasma cells which are gas-filled, with one or more electrode arrays (6, 7, 11) on the front plate and the carrier plate for generating silent electrical discharges in the plasma cells and has a green color filter layer (8) between the fluorescent layer of a green-emitting color segment and the front plate.

- 16. Juestel teaches the limitations of independent claim 1 discussed earlier but fails to exemplify the green color filter layer provided between the fluorescent layer of a green-emitting color segment and the carrier plate.
- 17. In Figure 1, Hayashi teaches that it is known in the art to provide a plasma display panel with a color filter layer (23) disposed between the fluorescent layer (21) and a carrier plate (27). Hayashi discloses that this color filter layer is provided for selectively transmitting a predetermined wavelength of visible light (¶ [0017]).
- 18. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the green color filter layer of Juestel between the fluorescent layer of the green-emitting color segment and the carrier plate, as taught by Hayashi, for selectively transmitting a predetermined wavelength of visible light.
- 19. Regarding claim 4, Hayashi discloses the green  $\mathsf{Tb}^{3^+}$ -activated fluorescent substance selected from the group  $(\mathsf{Y}_x\mathsf{Gd}_{1-x-y})\mathsf{BO}_3:\mathsf{Tb}_y\ (0 \le x \le 1,\ 0 \le y \le 1)$ ,  $\mathsf{LaPO}_4:\mathsf{Tb}$ ,

Application/Control Number: 10/511,372 Page 7

Art Unit: 2879

 $(Y_xGd_{1-x-y})_3Al_5O_{12}:Tb_y\ (0 \le x \le 1,\ 0 \le y \le 1),\ CeMgAl_{11}O_{19}:Tb,\ GdMgB_5O_{10}:Ce,Tb, \\ (Y_xGd_{1-x-y})_2SiO_5:Tb_y\ (0 \le x \le 1,\ 0 \le y \le 1),\ (ln_xGd_{1-x-y})BO_3:Tb_y\ (0 \le x \le 1,\ 0 \le y \le 1), \\ (Y_{1-x-y}Gd_x)_2O_2S:Tb_y\ (0 \le x \le 1,\ 0 \le y \le 1),\ LaOBr:Tb,\ LaOCl:Tb\ and\ LaPO_4:Ce,Tb\ (pg.3,\ quad [0041]).$ 

- 20. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juestel (US 2002/0041156) and Hayashi (US 2002/0089284) as applied to claim 1 above, and further in view of Sohn (US 6,650,052).
- 21. Regarding claim 2, Juestel and Hayashi teach the limitations of independent claim 1 discussed earlier but fail to exemplify the green color filter layer containing Pr<sup>3+</sup>-containing materials.
- 22. Sohn teaches that it is known in the art to provide plasma display panels with a color filter layer having Pr<sup>3+</sup>-containing materials (col. 3, ln. 6-8) for improving color purity (col. 2, ln. 50-51).
- 23. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the plasma display panel of Juestel and Hayashi with the color filter layer containing Pr<sup>3+</sup>-containing materials, as taught by Sohn, for improving the efficiency of the device.
- 24. Regarding claim 3, Sohn discloses the Pr<sup>3+</sup>-containing materials including material selected from the group PrPO<sub>4</sub>, PrF<sub>3</sub>, PrOCl, PrOF, PrOBr, Pr<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>, PrBO<sub>3</sub>, Pr<sub>2</sub>SiO<sub>5</sub>, Pr<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>, and PrB<sub>3</sub>O<sub>6</sub> (col. 4, In. 31-35).

## Response to Arguments

25. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Quarterman Examiner Art Unit 2879

12 May 2007

NIMESHKUMAR D. PATEL SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800